down explicitly what the students are expected to know. This book has developed from the teaching of renal pathophysiology to Harvard medical students. The book covers the normal physiological and biochemical aspects of renal function, pharmacotherapeutics, and the clinical, biochemical, and histological aspects of acute and chronic renal disease. As the authors state in their introduction, the aim of this book is that it should be an introduction to the subject area, and the reader seeking further knowledge is provided with ample references to both original articles and reviews. This is in all respects a most excellent book that undoubtedly should find a place not only in the teaching of medical students but also on the reading lists of those medical graduates preparing for higher degrees who need a solid foundation on which to build.

M. R. MILLS

Microbiological Aspects of Food Hygiene. Report of a WHO Expert Committee with the Participation of FAO. Technical Report Series No. 598. (Pp. 103; £2·52.) Geneva: WHO. 1976.

This report reflects an increasing awareness of microbiological hazards related to the consumption of contaminated food. The first part consists of short sections on the bacteria, viruses, fungi, and parasites which may give rise to food-borne disease. Each section summarises the epidemiology, pathogenesis, and laboratory investigation of disease caused by these agents. In the second part the way in which food is handled is related to its microbiological hazard. The interplay of processing, storage, food habits, and international travel is described. The place of monitoring, microbiological standards, and the best use of laboratory resources are discussed. In its recommendations the Committee stresses the need for international collaboration and research to produce information on which advice and control measures can be based.

This book is useful because it takes a broad look at the problems of food hygiene and for its references. (There are more than 200 of these, nearly half of them to publications after 1973.) Those who lecture on this topic will find it most valuable.

JOAN R. DAVIES

Phagocytic Engulfment and Cell Adhesiveness as Cellular Surface Phenomena. Edited by Carel J. van Oss, Cetewayo F. Gillman, and A. Wilhelm Neumann. (Pp. 176; illustrated; $19·50.) New York and Basel: Marcel Dekker. 1975.

It has long been realised that interfacial energies play an important role in the engulfment of bacteria, and Stuart Mudd, to whom this volume is dedicated, first showed that the hydrophobicity of bacteria correlates well with their susceptibility to phagocytosis. The authors critically examine the hypothesis that phagocytosis occurs primarily because of differences in the surface free energies of phagocyte and particle. The interfacial tensions have been measured by adaptation of the contact angle method, first developed by Thomas Young in London in 1855. Using this simple apparatus, the authors have investigated the role in phagocytosis of aspecific plasma factors, antibiotics, viruses, and antibodies. One of many intriguing findings is that the interfacial free energy of the Fc tail of the IgG molecule can be ascertained. Study of thermal energy requirements predicts that complexes of IgG with antigen require at least three immunoglobulin molecules before phagocytosis can occur whereas only one molecule of IgM is necessary. Lipid droplets such as triolein cause a decrease in the contact angle of phagocytes and thus enhance their phagocytic activity. These are but a few examples of the usefulness of the contact angle in interpreting a wide range of bacteriological and immunological phenomena. This book is lucid and original in outlook; it is commended to bacteriologists and immunologists everywhere.

A. E. STUART

Cytogenetic Aspects of Malignant Transformation. By N. B. Atkin, Experimental Biology and Medicine. Monographs on Interdisciplinary Topics, Vol. 6. (Pp. viii + 171; illustrated; SFr/DM 74.) Basel: Karger. 1976.

Dr Atkin and his colleagues have made a considerable contribution to our knowledge of the cytogenetics of neoplasia. This neat book is a comprehensive catalogue of information available on the karyotypes, of premalignant and malignant cells, described before the banding techniques that have led to a considerable refinement in chromosomal analysis were introduced. The text is factual rather than philosophical, but a glimpse of Dr Atkin's view of the importance of chromosomal abnormalities in relation to neoplasia is given in the main conclusions when he writes 'The data at present strongly suggest that damage caused by oncogenic agents at certain localized chromosomal sites is directly related to the acquisition of neoplastic properties, this damage frequently being manifested in the form of the chromosome abnormalities seen in the neoplastic cells.' This would indeed be a good starting point for an evaluation of the cytogenetic aspects of the problem of neoplasia.

SYLVIA D. LAWLER

Histology, 3rd edition. By C. Roland Leeson and Thomas S. Leeson. (Pp. ix + 605; illustrated); $9·75.) Philadelphia, London, Toronto: W. B. Saunders. 1976.

This work is extremely comprehensive and the components of the anatomical systems are dealt with in great detail. The intention of the authors was to combine an atlas of histopathology together with a textbook.

This third edition has been considerably expanded, the latter taking the form of an increase in the number of illustrations rather than in the text which, for the most part, is refreshingly curt and succinct. The illustrations are generally of a high standard, and the inclusion also of electron micrographs and a number of scanning electron micrographs adds considerably to the value of the relevant sections. There is a detailed chapter on the micro anatomy of the cell and each chapter has a comprehensive bibliography.

This book will be of value to undergraduates, although there is much in it which is too advanced for their needs, but it may stimulate those who seek to extend the range of their knowledge. It will also be of great value to teachers of histology and be helpful to the working histopathologist.

G. B. D. SCOTT

Medicolegal Investigation of Gunshot Wounds. By Abdullah Fatteh. (Pp. xv + 272; illustrated; £14·80.) Philadelphia, Toronto: J. B. Lippincott Company 1976.

The author has attempted to deal with the police and the scientific and pathological investigation of firearm wounds in this relatively short book, which also